

[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [66 FR 28361 5/23/2001]

[Docket No. 2001-CE-08-AD; Amendment 39-12235; AD 2001-10-09]

RIN 2120-AA64

Airworthiness Directives; Honeywell KC 225 Automatic Flight Control Systems

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that applies to certain Honeywell KC 225 automatic flight control systems (AFCS) that are installed on airplanes. This AD requires you to inspect the KC 225 AFCS to determine the computer modifications (Mods) that are incorporated, deactivate any units with only Mods 1 and/or 2 incorporated, and fabricate and install an appropriate placard if the unit is deactivated/inoperative. The AD would provide, as an alternative method of compliance, the option of installing a unit that incorporated MOD 3 or higher. This AD is the result of several reports that the AFCS is disconnecting without warning in a gross mistrim configuration. The actions specified by this AD are intended to prevent an undesirable autotrim command that the autopilot cannot detect in the required time. The airplane could then deviate from the selected altitude or the autopilot could disconnect without warning, which could result in heavy loads at the control column. Such loads in the pitch axis could result in loss of control of the airplane.

DATES: This AD becomes effective on June 15, 2001.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulation as of June 15, 2001.

The Federal Aviation Administration (FAA) must receive any comments on this rule by August 10, 2001.

ADDRESSES: Send three copies of your comments to FAA, Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 2001-CE-08-AD, 901 Locust, Room 506, Kansas City, Missouri 64106.

You may get the service information referenced in this AD from Honeywell, Product Support, One Technology Center, 23500 W. 105th Street, Olathe, Kansas 66061; telephone: (913) 712-2613; facsimile: (913) 712-1306. You may look at this information at FAA, Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 2001-CE-08-AD, 901 Locust, Room 506, Kansas City, Missouri 64106; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Clyde Erwin, Aerospace Engineer, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4149; facsimile: (329) 946-4407.

SUPPLEMENTARY INFORMATION:

Discussion

What events have caused this AD? The FAA has received reports that the Honeywell KC 225 automatic flight control system (AFCS) is disconnecting without warning during flight in a gross mistrim configuration. The suspect AFCS's incorporate computer modifications (Mods) 1 and/or 2.

Honeywell then conducted a factory test, where it was noted that the pitch trim ran when a malfunction of the trim sense 1 monitor timer happened with out-of-tolerance components in the trim sense 2 monitor timer. The autopilot then disconnected without warning because of other monitors in the autopilot.

What are the consequences if the condition is not corrected? This condition, if not corrected, could result in an undesirable autotrim command that the autopilot cannot detect in the required time. The airplane could then deviate from the selected altitude or the autopilot could disconnect without warning, which could result in heavy loads at the control column. Such loads in the pitch axis could result in loss of control of the airplane.

Is there service information that applies to this subject? Honeywell has issued Installation Bulletin No. 472 Alert, Revision 1, dated January 2001. This installation bulletin includes procedures for:

- inspecting to determine the currently incorporated computer Mods, which are indicated on the unit's serial number tag;
- returning the unit to Honeywell for modification; or
- contacting Honeywell for a warranty replacement unit.

The FAA's Determination and an Explanation of the Provisions of this AD

What has FAA decided? The FAA has reviewed all available information, including the service information referenced above, and determined that:

- the unsafe condition referenced in this document exists or could develop on airplanes equipped with a certain Honeywell KC 225 AFCS configuration;
- any airplane with one of these AFCS units should have the actions specified in the above service bulletin incorporated; and
- the FAA should take AD action to correct this unsafe condition.

What does this AD require? This AD requires you to accomplish the actions previously specified in Honeywell Installation Bulletin No. 472 Alert, Revision 1, dated January 2001.

Will I have the opportunity to comment prior to the issuance of the rule? Because the unsafe condition described in this document could result in potential loss of control of the airplane, FAA finds that notice and opportunity for public prior comment are impracticable. Therefore, good cause exists for making this amendment effective in less than 30 days.

Comments Invited

How do I comment on this AD? Although this action is in the form of a final rule and was not preceded by notice and opportunity for public comment, we invite your comments on the rule. You may send whatever written data, views, or arguments you choose. You need to include the rule's docket number and send three copies of your comments to the address specified under the caption "ADDRESSES." We will consider all comments received by the closing date specified above. We may change this rule in light of comments received. Factual information that supports your ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether we need to take additional rulemaking action.

Are there any specific portions of the AD I should pay attention to? The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. You may read all comments we receive before and after the closing date of the rule in the Rules Docket. We will file a report in the Rules Docket that summarizes each FAA contact with the public that concerns the substantive parts of this AD.

We are reviewing the writing style we currently use in regulatory documents, in response to the Presidential memorandum of June 1, 1998. That memorandum requires federal agencies to communicate more clearly with the public. We are interested in your comments on whether the style of this document is clear, and any other suggestions you might have to improve the clarity of FAA communications that affect you. You can get more information about the Presidential memorandum and the plain language initiative at <http://www.plainlanguage.gov>.

How can I be sure FAA receives my comment? If you want us to acknowledge the receipt of your comments, you must include a self-addressed, stamped postcard. On the postcard, write "Comments to Docket No. 2001-CE-08-AD." We will date stamp and mail the postcard back to you.

Regulatory Impact

Does this AD impact various entities?

These regulations will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, FAA has determined that this final rule does not have federalism implications under Executive Order 13132.

Does this AD involve a significant rule or regulatory action? The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and is not a significant regulatory action under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket (otherwise, an evaluation is not required). A copy of it, if filed, may be obtained from the Rules Docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by Reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. FAA amends § 39.13 by adding a new airworthiness directive (AD) to read as follows:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "av-info.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2001-10-09 HONEYWELL: Amendment 39-12235; Docket No. 2001-CE-08-AD.

(a) What airplanes are affected by this AD? This AD affects the following Honeywell automatic flight control systems (AFCS) that are installed in, but not limited to, the airplanes listed below:

(1) Affected KC 225 AFCS:

Unit	Part Number	Applicable to Serial Number
KC-225	065-00183-0101	All units
	065-00183-0201	
	065-00183-0301	
	065-00183-0401	
	065-00183-0501	
	065-00183-0601	
	065-00183-2501	
	065-00183-2601	
	065-00183-2701	
	065-00183-2801	
	065-00183-2901	
	065-00183-3001	

(2) List of airplanes where the affected AFCS could be installed. This is not a comprehensive list and airplanes not on this list that have an affected AFCS installed through field approval or other methods are still affected by this AD:

Manufacturer	Airplane Models
Aerostar Aircraft Corporation	PA-60-700P (Aerostar 700P)
The Cessna Aircraft Company	208 and 208B
Commander Aircraft Corporation	114B and 114TC
Mooney Aircraft Corporation	M20M and M20R
The New Piper Aircraft, Inc.	PA-34-220T and PA-46-350P
Raytheon Aircraft Company (Beech)	58, 95-55, 95-C55, A36, B36TC, D55, and E55

(b) Who must comply with this AD? Anyone who wishes to operate any airplane that incorporates one of the affected Honeywell automatic flight control systems must comply with this AD.

(c) What problem does this AD address? The actions specified by this AD are intended to prevent an undesirable autotrim command that the autopilot cannot detect in the required time. The airplane could then deviate from the selected altitude or the autopilot could disconnect without warning, which could result in heavy loads at the control column. Such loads in the pitch axis could result in loss of control of the airplane.

(d) What must I do to address this problem? To address this problem, you must do the following actions, unless already done:

Action	Compliance Time	Procedures
(1) Inspect the KC 225 automatic flight control system (AFCS) (Part Number 065-00183-0101, -0201, -0301, -0401, -0501, -0601, -2501, -2601, -2701, -2801, -2901, or -3001) to determine the currently installed computer modifications (Mods). These modifications are indicated on the AFCS serial number tag.	Within the next 10 hours time-in-service (TIS) after June 15, 2001 (the effective date of this AD).	Do this following the Honeywell Installation Bulletin No. 472 Alert, Revision 1, dated January 2001.
(2) If only Mods 1 and/or 2 are incorporated, accomplish the following: (i) Deactivate the KC 225 AFCS by pulling and banding the autopilot circuit breaker(s) to prevent operation of the KC 225 AFCS in flight; and (ii) Fabricate a placard that indicates the KC 225 AFCS is inoperative, and install this placard on the instrument panel within the pilot's clear view. The placard should use letters of at least 0.10-inch in height and contain the following words: "KC 225 AFCS INOPERATIVE."	Prior to further flight after the inspection required by paragraph (d)(1) of this AD.	Accomplish the deactivation in accordance with Honeywell Installation Bulletin No. 472 Alert, Revision 1, dated January 2001. The owner/operator holding at least a private pilot certificate as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7) may accomplish the placard requirements of paragraph (d)(2)(ii) of this AD. Make an entry into the aircraft records showing compliance with this portion of the AD in accordance with section 43.9 of the Federal Aviation Regulations (14 CFR 43.9).

Action	Compliance Time	Procedures
(3) As an alternative method of compliance to paragraphs (d)(2)(i) and (d)(2)(ii) of this AD for the KC 225 AFCS with only Mods 1 and/or 2 installed, accomplish either of the following to return the KC 225 AFCS to operation:	At any time as terminating action for all other requirements of this AD.	Do this following the Honeywell Installation Bulletin No. 472 Alert, Revision 1, dated January 2001.
(i) Return the AFCS to the Honeywell Service Center for modification to install Mod 1, 2, and 3 (or higher) levels and then incorporate this AFCS on the airplane; or		
(ii) Contact Honeywell Product Support for a warranty replacement KC 225 AFCS that contains Mod 1, 2, and 3 (or higher) levels and then incorporate this AFCS on the airplane.		
(4) If no Mods are installed or at least Mods 1, 2, and 3 are installed, ensure that the aircraft records identify Mod status. No further action is required by this AD.	Prior to further flight after the inspection required by paragraph (d)(1) of this AD.	Do this following the Honeywell Installation Bulletin No. 472 Alert, Revision 1, dated January 2001.

(e) Can I comply with this AD in any other way? You may use an alternative method of compliance or adjust the compliance time if:

- (1) Your alternative method of compliance provides an equivalent level of safety; and
- (2) The Manager, Wichita Aircraft Certification Office approves your alternative. Send your request through an FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Wichita ACO.

Note: This AD applies to each airplane with a Honeywell automatic flight control computer identified in paragraph (a) of this AD, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. You should include in the request an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if you have not eliminated the unsafe condition, specific actions you propose to address it.

(f) Where can I get information about any already-approved alternative methods of compliance?

Contact Clyde Erwin, Aerospace Engineer, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4149; facsimile: (329) 946-4407.

(g) What if I need to fly the airplane to another location to comply with this AD? The FAA can issue a special flight permit under sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate your airplane to a location where you can accomplish the requirements of this AD.

(h) Are any service bulletins incorporated into this AD by reference? Actions required by this AD must be done in accordance with Honeywell Installation Bulletin No. 472 Alert, Revision 1, dated January 2001. The Director of the Federal Register approved this incorporation by reference under 5 U.S.C. 552(a) and 1 CFR part 51. You can get copies from Honeywell, Business & General Aviation, One Technology Center, 23500 W. 105th Street, Olathe, Kansas 66061. You can look at copies at FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri, or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

(i) When does this amendment become effective? This amendment becomes effective on June 15, 2001.

FOR FURTHER INFORMATION CONTACT: Clyde Erwin, Aerospace Engineer, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4149; facsimile: (329) 946-4407.

Issued in Kansas City, Missouri, on May 14, 2001.

Melvin D. Taylor, Acting Manager, Small Airplane Directorate, Aircraft Certification Service.